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REPORT NO. 4



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 October 22, 1976

Discussion of Test Results

The average Fibrograph 2.5% span length of short staple samples tested from the Southwest through October 15 is shorter than a year ago, according to the Cotton Division, Agricultural Marketing Service, USDA. Cottons are less uniform. The average fiber strength is considerably weaker than a year ago on the limited number of lots tested this season. Shirley Analyzer nonlint content is lower, while picker and card waste on the average is higher than last season. Yarns spun from these samples show considerably weaker yarn strength but approximately the same appearance and imperfection qualities as a year ago. The average spinning potential yarn number is lower.

Medium staple samples tested from the South Central area are slightly shorter and considerably finer than a year ago at this time. The average 1/8-inch gage fiber strength is weaker. Picker and card waste is higher. Generally the yarn qualities are better than a year ago. Yarns spun from these samples show stronger skein strength and higher appearance grades than a year ago. There are fewer imperfections. The average spinning potential yarn number is higher.

Medium staple samples tested from the Southwest show cotton fibers to be slightly longer and finer than a year ago. Picker and card waste is higher. Yarns spun from these samples show approximately the same yarn properties as a year ago except for having slightly fewer imperfections.

These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season. 1/ These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

Summary of Cotton Fiber and Processing Test Results, Crop of 1975, USDA, AMS, Cotton Division, May 1976.

Averages of fiber and processing tests from selected gin points in the United State, through October 15, 1976 1/Table 1.--Cotton:

			Fib	Fiber test	results			!	Processi	Processing test results	result	10	
Staple group	Lots	Fibrograph	graph	Mike	Fiber	strength			Yar	Yarn quality	ty	2 3 3	
Crop year	tested	2.5% span	50/2.5 unif.	fine- ness	Zero gage	1/8" gage	S A nonlint	P & C waste	Skein str.	Appear-Imperf- ance ections	Imperf- actions	Spin.	
	No.	Inches	Pet.	Rdg.	Mpsi	G/tex	æt.	æt.	Lbs. 22s	Index	No. Yarn	Yarn No.	.1
Short Staple: Southwest 1975 1976	12 m	1.01	†††1 9†1	†•† †•†	88	82 83	3.4. 4.8.	5.8	104	113	11	48 36	
Medium Staple: South Central 1975	9 %	1.11	9† 9†	4.8	88	24 22	9.9	5.1	99 211	10 2 107	19	54 59	
Southwest 1975 1976	22	1.08	45 45	4.3	81 81	22	3.1	4.7	103	66	22 19	28	- 3 -
						·							
Significant dif- ference 2/		0.05	ત્ય	0.2	ત્ય :	1	0.5	0.5	4(22s)) 5	8	m	
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Based on a limited number of samples of modal quality . Minimum differences considered to be significant for comparisons in this table.

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Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1976...

	Spin. Poten-	tial	No I		45	31	35
:	Imprfect'ns Spin.	8s or 22sor 74 tx 27 tx	No		٥	20	11
Yarns	Imprf	8s or 74 tx	<u>N</u>		11	±	22
arded }	ance x	22sor 27 tx	외		120	110	110
. Processing Test Results - Carded Yarns	Appearance Index	8s or 22sor 8s or 22sor 74 tx 27 tx 74 tx 27 tx	욁		130	130	130
	tion	Waste 8s or 22s or 8s or 22s or 74 tx 27 tx	Pet		0.9	5.5	5.1
	Elongation	8s or 74 tx	Pet		ENT 7.7	ENT 6.8	ENT 6.4
Proces	gth	22s or 27 tx	rps		100 PERCENT	100 PERCENT	100 PERCENT
Fiber Test Results	Strength	8s or 74 tx	Lbs		307	100	100
	Color Raw Stock P & C	Waste	Pct		8.8	1.9	7.9
	Color w Stock	Yel	외		4	•	*
	Raw	Gra	8		8	7	8
	Elon- S.A. Col gat'n Non- Raw S 1/8" lint Gra		Pct		3.1	2.5	2.9
	Elon- gat'n 1/8"		Pct		KART 611 6.8	57 5.6	KART LX571 5.4 2.9
	Fiber rength	1/8" Gage	Mpsi G/tex		LANKART 20	LANKART 57 19 5.	LANKART 21
	Fiber Strength	Zero Gage	Mpsi		79	82	87
	Mike		Rdg		6. 3	;	9.
	al raph	Unif	Pet		45	4.2	45
	Digital Fibrograph	Stple span	5	up.		0.92	96.0
	-	Stple	32s	AREA		30	31
rea,				Ā	45	32	45
Production Area,	Sample Number	No Name & Code		SOUTHWEST	CENTRAL TEXAS BRANDON 1 SLM LT SP 42 31	1 MID LT SP 32 30 0.92	17ASCA 1 SLM LT SP 42 31 .0.98

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1976

	Spin. Poten- tial		63	53		64	99	9
	Imprfect'ns 2s or 50s or 7 tx 12 tx No No		11	-		30	15	80
arns	Imprfect'ns 22s or 50s or 27 tx 12 tx No No		16	=======================================		0	23	13
Processing Test Results - Carded Yarns	rance ex 50s or 12 tx No		9 0	100		9	09	06
	Appearance Index 22s or 50s 77 tx 12 t		011	110		70	100	100
	ation 50s or 12 tx Pet		4.5 E.4	9.9		3.8	4.5	+.1
ssing Te	Strength Elongation 22s or 50s or 22s or 50s or 27 tx 12 tx 27 tx 12 tx 1bs 1bs Pct Pct	CENT	6.5 CENT 6.1	CENT 5.4		S.9	5.4 6.4	5.5 6.5
Proce	Strength s or 50s or tx 12 tx tx 12 tx tbs 1bs	PER	38 39	100 PERCENT 102 32 5.		100 PERCENT 95 28 5.	PERCENT	95 PERCENT 36 6.
	Stre 22s or 27 tx Lbs	100 PERCENT	117 38 6.5 100 PERCENT 116 39 6.1	100		100	101	111
	Color Raw Stock P & C Gra Yel Waste		6.3	0.9		9.6	5.5	3.9
	Color w Stock a Yel		7	۳		m	€	m
Fiber Test Results				8		7	-	-
	S.A. Non- Lint	_	3.5	3 2.7		5.6	1.9	1.7
	Elon- gat'n 1/8" Pct	11E 21	6.4 NE 25 6.3	LLE 21: 5.3		SP37 6.2	LLE 213	NE 16 7.1
	er gth 1/8" Gage G/tex	STONEVILLE 21	23 6.4 DELTAPINE 25 22 6.3	STONEVILLE 213 22 5+3		TANCOT SP37 20 6.2	STONEVILLE 213 22 6.4	DELTAPINE 10 22 7.1
	Fiber Strength Zero 1/ Gage Ga		& & & &	87		08	80	18
	Mike Rdg		4.2	4.		3.1	4.5	8.
	graph Unif.		4 4	94		40	94	\$
	Digital Fibrograph 2.5% Uni span In Pet		1.11	1.08		61 1/32 1.01	1.12	35 1.14
	Stple 32s	AREA	36	34	AREA	/32	35	35
Area,	lber de		1, 1,	ON 1	4		31	31
Production Area, Classification	Sample Number Orade No Grade Name & Code	SOUTH CENTRAL ARKANSAS DRIVER	1 SLM LOUISIANA OAK RIDGE 1 SLM	SICILY ISLAND 1 SLM 41	SOUTHWEST	CENTRAL TEXAS AQUILLA 1 SGO	BATESVILLE 2 MIO	NAVASOTA 1 NIO

1/ Reduced from 51 because of bark

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